

## CLAIMS

[c1] 1. A method of effecting handoff of a mobile station from a first base station in a first cellular communications system controlled by a first mobile switching control station to a second base station in a second, different cellular system controlled by a second mobile switching control station, the method comprising:

- measuring at the mobile station a parameter of a signal transmitted by said first base station;
- measuring at the mobile station a parameter of a signal transmitted by said second base station;
- communicating a signal quality message from the mobile station via the first base station to said first mobile switching control station, when the parameters reach a predetermined condition;
- generating at the first mobile switching control station information for a channel request message for the second mobile switching control station;
- communicating the information from said first mobile switching control station to said mobile station;
- generating at the mobile station from the information from the first mobile switching control station a channel request message for the second mobile switching control station; and
- communicating the channel request message from the mobile station to the second mobile switching control station.

[c2] 2. The method as claimed in claim 1, further comprising generating at the second mobile switching control station channel information identifying a channel in the second communications system for the mobile station.

[c3] 3. The method as claimed in claim 2, further comprising establishing communication between said mobile unit and said second base station in the identified channel.

[c4] 4. The method as claimed in claim 3, further comprising discontinuing communication between said mobile unit and said first base station.

[c5] 5. The method as claimed in claim 1, wherein said parameter corresponds to signal strength.

[c6] 6. The method as claimed in claim 1, wherein said first cellular communications system is a CDMA system.

[c7] 7. The method as claimed in claim 6, wherein said second cellular communications system is a GSM system.

[c8] 8. A mobile station comprising:

a first transceiver chain operable to receive and transmit signals with a first base station in a first cellular communications system;

a second transceiver chain operable to receive and transmit signals with a second base station in a second cellular communications system; and

a controller for:

measuring a parameter of a signal transmitted by said first base station;

measuring a parameter of a signal transmitted by said second base station;

communicating a signal quality message from the mobile station via the first base station to said first cellular communications system, when the parameters reach a predetermined condition;

receiving from the first base station information for a channel request message for the second cellular communications system;

generating from the information from the first base station a channel request message for the second cellular communications system; and

communicating the channel request message to the second mobile station.

[c9] 9. The mobile station as claimed in claim 8, wherein the controller is further for receiving from said second base station channel information identifying a channel in the second communications system for the mobile station.

[c10] 10. The mobile station as claimed in claim 9, wherein the controller is arranged to respond to the channel information by establishing communication between said mobile unit and said second base station in the identified channel.

[c11] 11. The mobile station as claimed in claim 10, herein the controller is arranged to respond to the channel information by discontinuing communication between said mobile unit and said first base station.

[c12] 12. The mobile station as claimed in claim 8, wherein said parameter corresponds to signal strength.

[c13] 13. The mobile station as claimed in claim 8, wherein said first cellular communications system is a CDMA system.

[c14] 14. The mobile station as claimed in claim 13, wherein said second cellular communications system is a GSM system.

[c15] 15. The mobile station as claimed in claim 8, wherein the first transceiver chain is active when the second transceiver chain is inactive.

[c16] 16. The mobile station as claimed in claim 8, wherein the second transceiver chain is active when the first transceiver chain is inactive.

[c17] 17. An apparatus for effecting handoff of a mobile station from a first base station in a first cellular communications system controlled by a first mobile switching control station to a second base station in a second, different cellular system controlled by a second mobile switching control station, the method comprising:  
means for measuring at the mobile station a parameter of a signal transmitted by said first base station;

means for measuring at the mobile station a parameter of a signal transmitted by said second base station;

means for communicating a signal quality message from the mobile station through the first base station to said first mobile switching control station, when the parameters reach a predetermined condition;

means for generating at the first mobile switching control station information for a channel request message for the second mobile switching control station;

means for communicating the information from said first mobile switching control station to said mobile station;

means for generating at the mobile station from the information from the first mobile switching control station a channel request message for the second mobile switching control station; and

means for communicating the channel request message from the mobile station to the second mobile switching control station.

[c18]

18. The apparatus as claimed in claim 17, further comprising means for generating at the second mobile switching control station channel information identifying a channel in the second communications system for the mobile station.

[c19]

19. The apparatus as claimed in claim 18, further comprising means for establishing communication between said mobile unit and said second base station in the identified channel.

[c20]

20. The apparatus as claimed in claim 19, further comprising means for discontinuing communication between said mobile unit and said first base station.

[c21]

21. The apparatus as claimed in claim 17, wherein said parameter corresponds to signal strength.

[c22]

22. The apparatus as claimed in claim 17, wherein said first cellular communications system is a CDMA system.

[c23]

23. The apparatus as claimed in claim 22, wherein said second cellular communications system is a GSM system.

[c24]

24. The apparatus as claimed in claim 22, wherein said second cellular communication system is a GPRS system.